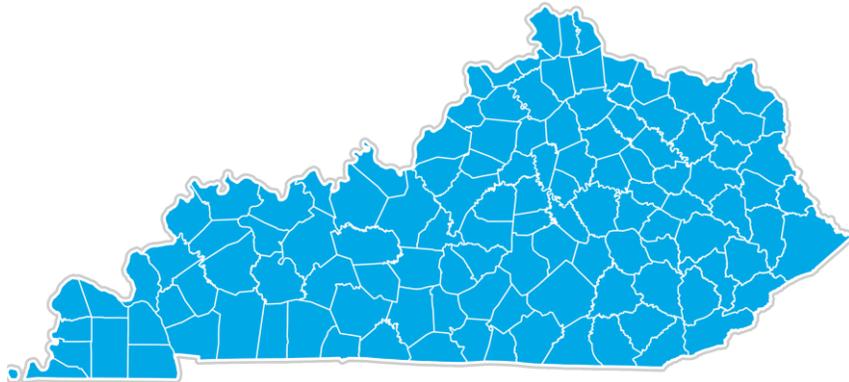


October 18, 2017



# **Economic Overview**

## **Kentucky**



**DEMOGRAPHIC PROFILE.....3**  
**EMPLOYMENT TRENDS.....5**  
**UNEMPLOYMENT RATE .....5**  
**WAGE TRENDS .....6**  
**COST OF LIVING INDEX .....6**  
**INDUSTRY SNAPSHOT.....7**  
**OCCUPATION SNAPSHOT .....9**  
**INDUSTRY CLUSTERS .....11**  
**EDUCATION LEVELS .....11**  
**GROSS DOMESTIC PRODUCT .....12**  
**FAQ.....13**

# Demographic Profile

In 2016, the population in Kentucky was 4,436,974. Between 2006 and 2016, the region's population grew at an annual average rate of 0.5%.

The region has a civilian labor force of 2,065,689 with a participation rate of 59.1%. Of individuals 25 to 64 in Kentucky, 23.9% have a bachelor's degree or higher which compares with 31.3% in the nation.

The median household income in Kentucky is \$43,740 and the median house value is \$123,200.

Summary <sup>1</sup>						
	Percent			Value		
	Kentucky	Kentucky	USA	Kentucky	Kentucky	USA
<b>Demographics</b>						
Population <sup>6</sup>	—	—	—	4,436,974	4,436,974	323,127,513
Population Annual Average Growth <sup>6</sup>	0.5%	0.5%	0.8%	21,774	21,774	2,474,760
Median Age <sup>2,4</sup>	—	—	—	38.1	38.1	37.2
Under 18 Years <sup>4</sup>	23.6%	23.6%	24.0%	1,023,371	1,023,371	74,181,467
18 to 24 Years <sup>4</sup>	9.5%	9.5%	9.9%	412,801	412,801	30,672,088
25 to 34 Years <sup>4</sup>	13.0%	13.0%	13.3%	566,216	566,216	41,063,948
35 to 44 Years <sup>4</sup>	13.3%	13.3%	13.3%	576,662	576,662	41,070,606
45 to 54 Years <sup>4</sup>	14.8%	14.8%	14.6%	643,097	643,097	45,006,716
55 to 64 Years <sup>4</sup>	12.4%	12.4%	11.8%	538,993	538,993	36,482,729
65 to 74 Years <sup>4</sup>	7.5%	7.5%	7.0%	325,314	325,314	21,713,429
75 Years, and Over <sup>4</sup>	5.8%	5.8%	6.0%	252,913	252,913	18,554,555
Race: White <sup>4</sup>	87.8%	87.8%	72.4%	3,809,537	3,809,537	223,553,265
Race: Black or African American <sup>4</sup>	7.8%	7.8%	12.6%	337,520	337,520	38,929,319
Race: American Indian and Alaska Native <sup>4</sup>	0.2%	0.2%	0.9%	10,120	10,120	2,932,248
Race: Asian <sup>4</sup>	1.1%	1.1%	4.8%	48,930	48,930	14,674,252
Race: Native Hawaiian and Other Pacific Islander <sup>4</sup>	0.1%	0.1%	0.2%	2,501	2,501	540,013
Race: Some Other Race <sup>4</sup>	1.3%	1.3%	6.2%	55,551	55,551	19,107,368
Race: Two or More Races <sup>4</sup>	1.7%	1.7%	2.9%	75,208	75,208	9,009,073
Hispanic or Latino (of any race) <sup>4</sup>	3.1%	3.1%	16.3%	132,836	132,836	50,477,594
<b>Economic</b>						
Labor Force Participation Rate and Size (civilian population 16 years and over)	59.1%	59.1%	63.3%	2,065,689	2,065,689	158,897,824
Armed Forces Labor Force	0.4%	0.4%	0.4%	14,748	14,748	1,015,464
Veterans, Age 18-64	6.1%	6.1%	5.5%	168,075	168,075	10,750,884
Median Household Income <sup>2</sup>	—	—	—	\$43,740	\$43,740	\$53,889
Per Capita Income	—	—	—	\$24,063	\$24,063	\$28,930
Poverty Level (of all people)	18.9%	18.9%	15.5%	805,841	805,841	47,749,043
Households Receiving Food Stamps	17.3%	17.3%	13.2%	295,954	295,954	15,399,651
Mean Commute Time (minutes)	—	—	—	23.0	23.0	25.9
Commute via Public Transportation	1.1%	1.1%	5.1%	20,322	20,322	7,362,038

Summary <sup>1</sup>						
	Percent			Value		
	Kentucky	Kentucky	USA	Kentucky	Kentucky	USA
Union Membership <sup>3</sup>	10.8%	10.8%	10.7%	—	—	—
<b>Educational Attainment, Age 25-64</b>						
No High School Diploma	12.7%	12.7%	11.8%	293,787	293,787	19,736,243
High School Graduate	33.0%	33.0%	26.4%	765,919	765,919	43,982,863
Some College, No Degree	21.9%	21.9%	21.7%	509,552	509,552	36,187,232
Associate's Degree	8.6%	8.6%	8.8%	199,027	199,027	14,742,654
Bachelor's Degree	14.4%	14.4%	19.9%	334,552	334,552	33,245,950
Postgraduate Degree	9.4%	9.4%	11.4%	219,404	219,404	18,952,103
<b>Housing</b>						
Total Housing Units	—	—	—	1,944,495	1,944,495	133,351,840
Median House Value (of owner-occupied units) <sup>2</sup>	—	—	—	\$123,200	\$123,200	\$178,600
Homeowner Vacancy	2.0%	2.0%	1.9%	23,896	23,896	1,492,691
Rental Vacancy	6.3%	6.3%	6.4%	38,615	38,615	2,949,366
Renter-Occupied Housing Units (% of Occupied Units)	32.8%	32.8%	36.1%	559,747	559,747	42,214,214
Occupied Housing Units with No Vehicle Available (% of Occupied Units)	7.8%	7.8%	9.1%	134,111	134,111	10,628,474
<b>Social</b>						
Enrolled in Grade 12 (% of total population)	1.3%	1.3%	1.4%	56,827	56,827	4,451,334
Disconnected Youth <sup>5</sup>	3.0%	3.0%	3.0%	6,969	6,969	518,859
Children in Single Parent Families (% of all children)	35.6%	35.6%	34.8%	335,104	335,104	24,408,909
With a Disability, Age 18-64	15.7%	15.7%	10.3%	421,172	421,172	19,985,588
With a Disability, Age 18-64, Labor Force Participation Rate and Size	32.6%	32.6%	41.0%	137,241	137,241	8,185,456
Foreign Born	3.4%	3.4%	13.2%	151,032	151,032	41,717,420
Speak English Less Than Very Well (population 5 yrs and over)	2.1%	2.1%	8.6%	87,159	87,159	25,410,756

Source: [JobsEQ®](#)

1. ACS 2011-2015, unless noted otherwise

2. Median values for certain aggregate regions (such as MSAs) may be estimated as the weighted averages of the median values from the composing counties.

3. 2016; Current Population Survey, unionstats.com, and Chmura; county- and zip-level data are best estimates based upon industry-, MSA-, and state-level data

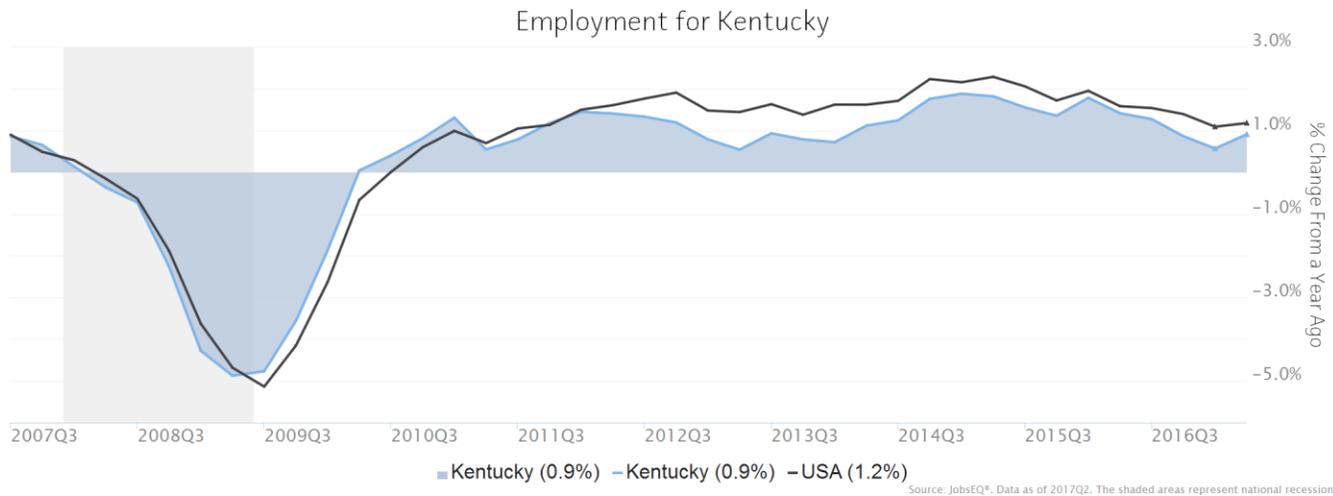
4. Census 2010

5. Disconnected Youth are 16-19 year olds who are (1) not in school, (2) not high school graduates, and (3) either unemployed or not in the labor force.

6. Census 2016, annual average growth rate since 2006

# Employment Trends

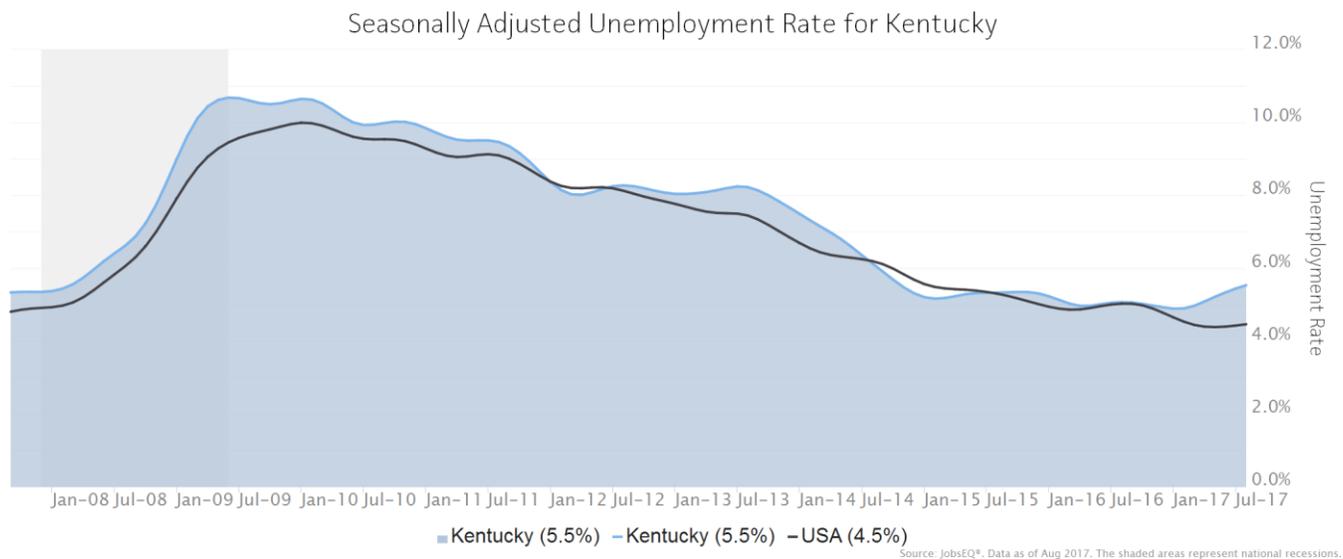
As of 2017Q2, total employment for Kentucky was 2,031,196 (based on a four-quarter moving average). Over the year ending 2017Q2, employment increased 0.9% in the region.



Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2016Q4 with preliminary estimates updated to 2017Q2.

# Unemployment Rate

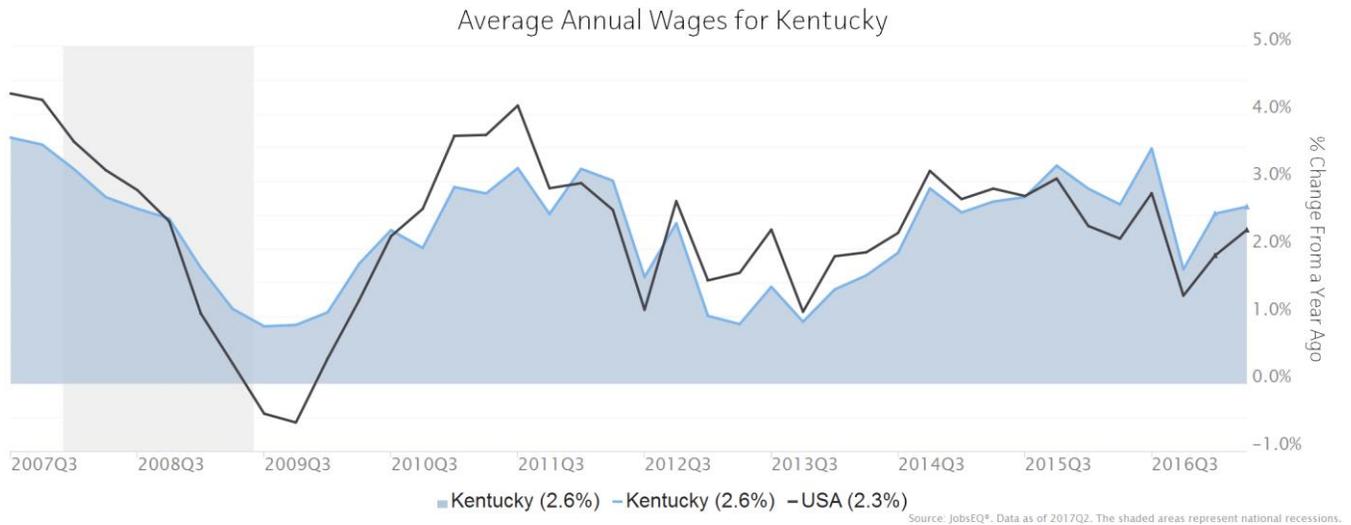
The seasonally adjusted unemployment rate for Kentucky was 5.5% as of August 2017. The regional unemployment rate was higher than the national rate of 4.5%. One year earlier, in August 2016, the unemployment rate in Kentucky was 5.1%.



Unemployment rate data are from the Local Area Unemployment Statistics, provided by the Bureau of Labor Statistics and updated through August 2017.

# Wage Trends

The average worker in Kentucky earned annual wages of \$43,547 as of 2017Q2. Average annual wages per worker increased 2.6% in the region during the preceding four quarters. For comparison purposes, annual average wages were \$53,284 in the nation as of 2017Q2.



Annual average wages per worker data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2016Q4 with preliminary estimates updated to 2017Q2.

# Cost of Living Index

The Cost of Living Index estimates the relative price levels for consumer goods and services. When applied to wages and salaries, the result is a measure of relative purchasing power. The cost of living is 13.1% lower in Kentucky than the U.S. average.

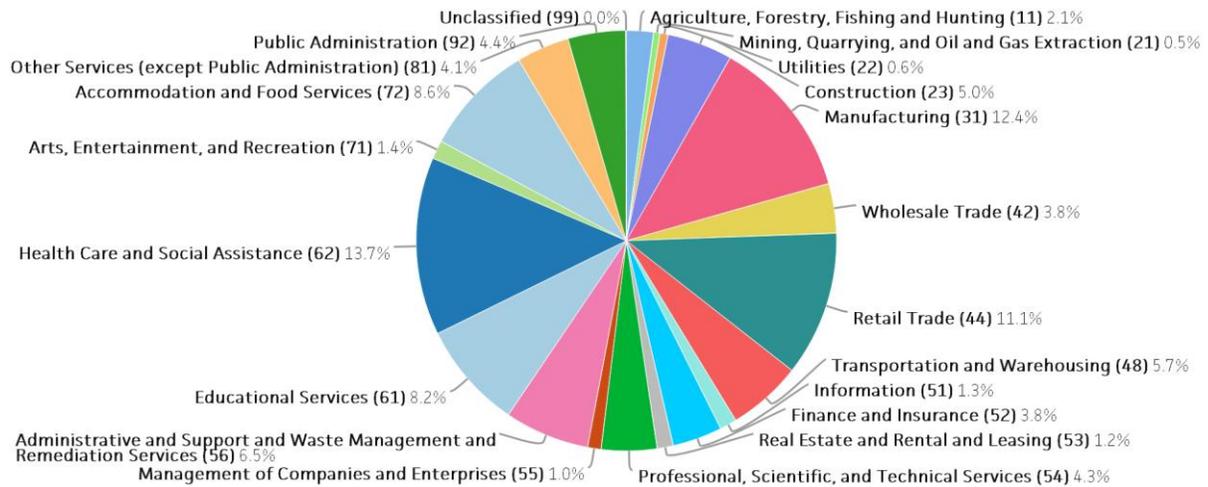
Cost of Living Information			
	Annual Average Salary	Cost of Living Index (Base US)	US Purchasing Power
Kentucky	\$43,547	86.9	\$50,128
Kentucky	\$43,547	86.9	\$50,128
USA	\$53,284	100.0	\$53,284

Source: [JobsEQ®](#)  
 Data as of 2017Q2  
 Cost of Living per C2ER, data as of 2017q1, imputed by Chmura where necessary.

# Industry Snapshot

The largest sector in Kentucky is Health Care and Social Assistance, employing 278,220 workers. The next-largest sectors in the region are Manufacturing (252,055 workers) and Retail Trade (226,111). High location quotients (LQs) indicate sectors in which a region has high concentrations of employment compared to the national average. The sectors with the largest LQs in the region are Manufacturing (LQ = 1.51), Agriculture, Forestry, Fishing and Hunting (1.44), and Transportation and Warehousing (1.36).

Total Workers for Kentucky by Industry



Source: JobsEQ®, Data as of 2017Q2

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2016Q4 with preliminary estimates updated to 2017Q2.

Sectors in Kentucky with the highest average wages per worker are Management of Companies and Enterprises (\$103,079), Utilities (\$70,013), and Finance and Insurance (\$69,568). Regional sectors with the best job growth (or most moderate job losses) over the last 5 years are Manufacturing (+32,274 jobs), Accommodation and Food Services (+19,935), and Administrative and Support and Waste Management and Remediation Services (+18,154).

Over the next 10 years, employment in Kentucky is projected to expand by 92,396 jobs. The fastest growing sector in the region is expected to be Health Care and Social Assistance with a +1.5% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Health Care and Social Assistance (+43,955 jobs), Administrative and Support and Waste Management and Remediation Services (+13,066), and Construction (+12,729).

		Current			Historical				Forecast		
		Four Quarters Ending with 2017q2			Total Change over the Last 5 Years	Average Annual % Change in Employment 2012q2-2017q2			Over the Next 10 Years		
NAICS	Industry	Empl	Avg. Annual Wages	Location Quotient	Empl	Kentucky	Kentucky	USA	Total Approx Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11	Agriculture, Forestry, Fishing and Hunting	42,275	\$20,578	1.44	1,181	0.6%	0.6%	0.8%	14,402	-2,533	-0.6%
21	Mining, Quarrying, and Oil and Gas Extraction	10,142	\$68,449	1.24	-12,528	-14.9%	-14.9%	-4.9%	2,332	-937	-1.0%
22	Utilities	12,655	\$70,013	1.17	51	0.1%	0.1%	0.1%	3,133	-738	-0.6%
23	Construction	101,852	\$47,569	0.91	8,248	1.7%	1.7%	3.2%	21,047	12,729	1.2%
31	Manufacturing	252,055	\$57,235	1.51	32,274	2.8%	2.8%	0.8%	56,508	-16,967	-0.7%
42	Wholesale Trade	77,605	\$61,527	0.98	3,444	0.9%	0.9%	0.9%	17,453	3,886	0.5%
44	Retail Trade	226,111	\$27,393	1.03	12,645	1.2%	1.2%	1.3%	71,460	11,707	0.5%
48	Transportation and Warehousing	116,167	\$52,171	1.36	14,828	2.8%	2.8%	2.7%	30,297	1,066	0.1%
51	Information	26,465	\$50,617	0.65	-3,979	-2.8%	-2.8%	0.8%	6,123	-2,041	-0.8%
52	Finance and Insurance	77,501	\$69,568	0.96	7,035	1.9%	1.9%	1.1%	18,607	3,698	0.5%
53	Real Estate and Rental and Leasing	25,189	\$42,284	0.73	1,470	1.2%	1.2%	1.9%	5,627	355	0.1%
54	Professional, Scientific, and Technical Services	86,864	\$61,797	0.65	7,905	1.9%	1.9%	2.4%	18,795	9,930	1.1%
55	Management of Companies and Enterprises	20,805	\$103,079	0.70	874	0.9%	0.9%	2.9%	4,485	890	0.4%
56	Administrative and Support and Waste Management and Remediation Services	132,657	\$30,181	1.01	18,154	3.0%	3.0%	2.6%	30,961	13,066	0.9%
61	Educational Services	167,354	\$39,734	1.00	-5,081	-0.6%	-0.6%	0.7%	35,224	4,044	0.2%
62	Health Care and Social Assistance	278,220	\$48,719	0.96	12,029	0.9%	0.9%	2.5%	56,978	43,955	1.5%
71	Arts, Entertainment, and Recreation	28,695	\$22,667	0.71	3,297	2.5%	2.5%	2.3%	8,961	1,907	0.6%
72	Accommodation and Food Services	175,129	\$16,678	0.96	19,935	2.4%	2.4%	3.0%	62,231	7,453	0.4%
81	Other Services (except Public Administration)	82,479	\$27,029	0.92	-2,412	-0.6%	-0.6%	-0.2%	20,923	2,825	0.3%
92	Public Administration	90,115	\$45,498	0.93	-2,471	-0.5%	-0.5%	0.1%	21,506	-1,969	-0.2%
99	Unclassified	860	\$50,014	0.21	384	12.6%	12.6%	13.2%	216	70	0.8%
	Total - All Industries	2,031,196	\$43,547	1.00	117,283	1.2%	1.2%	1.7%	502,591	92,396	0.4%

Source: [JobsEQ®](#)

Employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and imputed where necessary. Data are updated through 2016Q4 with preliminary estimates updated to 2017Q2. Forecast employment growth uses national projections adapted for regional growth patterns.

# Occupation Snapshot

The largest major occupation group in Kentucky is Office and Administrative Support Occupations, employing 289,307 workers. The next-largest occupation groups in the region are Sales and Related Occupations (199,249 workers) and Production Occupations (191,985). High location quotients (LQs) indicate occupation groups in which a region has high concentrations of employment compared to the national average. The major groups with the largest LQs in the region are Production Occupations (LQ = 1.56), Transportation and Material Moving Occupations (1.25), and Installation, Maintenance, and Repair Occupations (1.11).

Occupation groups in Kentucky with the highest average wages per worker are Management Occupations (\$94,000), Legal Occupations (\$76,200), and Architecture and Engineering Occupations (\$73,300). The unemployment rate in the region varied among the major groups from 1.0% among Legal Occupations to 8.8% among Food Preparation and Serving Related Occupations.

Over the next 10 years, the fastest growing occupation group in Kentucky is expected to be Healthcare Support Occupations with a +1.7% year-over-year rate of growth. The strongest forecast by number of jobs over this period is expected for Healthcare Practitioners and Technical Occupations (+17,362 jobs) and Healthcare Support Occupations (+9,531). Over the same period, the highest replacement demand (occupation demand due to retirements and workers moving from one occupation to another) is expected in Food Preparation and Serving Related Occupations (67,117 jobs) and Sales and Related Occupations (65,711).

Occupation Snapshot in Kentucky														
		Current					Historical				Forecast			
		Four Quarters Ending with 2017q2			2017q2		Total Change over the Last 5 Years	Avg Ann % Chg in Empl 2012q2-2017q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages <sup>1</sup>	LQ	Unempl	Unempl Rate	Empl	Kentucky	Kentucky	USA	Current Online Job Ads <sup>2</sup>	Total Repl Demand	Total Growth Demand	Avg. Annual Growth Percent
11-0000	Management Occupations	127,006	\$94,000	1.03	2,036	1.6%	5,890	1.0%	1.0%	1.5%	5,122	46,696	3,055	0.2%
13-0000	Business and Financial Operations Occupations	81,158	\$62,200	0.78	2,892	3.6%	5,494	1.4%	1.4%	1.7%	3,241	18,860	5,908	0.7%
15-0000	Computer and Mathematical Occupations	38,619	\$69,500	0.65	1,133	3.0%	2,482	1.3%	1.3%	2.5%	3,293	5,990	4,714	1.2%
17-0000	Architecture and Engineering Occupations	27,990	\$73,300	0.81	936	3.3%	2,038	1.5%	1.5%	1.0%	1,194	7,331	461	0.2%
19-0000	Life, Physical, and Social Science Occupations	12,994	\$55,500	0.77	504	3.8%	222	0.3%	0.3%	1.2%	560	4,180	764	0.6%
21-0000	Community and Social Service Occupations	33,525	\$41,300	1.04	478	1.4%	547	0.3%	0.3%	2.0%	1,353	7,536	3,052	0.9%
23-0000	Legal Occupations	12,148	\$76,200	0.72	122	1.0%	-87	-0.1%	-0.1%	0.4%	132	2,423	573	0.5%
25-0000	Education, Training, and Library Occupations	111,693	\$48,300	0.97	3,476	3.1%	-3,882	-0.7%	-0.7%	0.8%	2,340	23,516	4,432	0.4%
27-	Arts, Design,	26,739	\$44,100	0.73	1,044	3.9%	481	0.4%	0.4%	1.1%	972	9,543	218	0.1%

### Occupation Snapshot in Kentucky

		Current					Total Change over the Last 5 Years	Historical			Forecast			
		Four Quarters Ending with 2017q2			2017q2			Avg Ann % Chg in Empl 2012q2-2017q2			Over the Next 10 Years			
SOC	Title	Empl	Avg. Annual Wages <sup>1</sup>	LQ	Unempl	Unempl Rate		Empl	Kentuck y	Kentuck y	USA	Current Online Job Ads <sup>2</sup>	Total Repl Demand	Total Growth Demand
0000	Entertainment, Sports, and Media Occupations													
29-0000	Healthcare Practitioners and Technical Occupations	126,499	\$71,000	1.10	2,052	1.6%	4,509	0.7%	0.7%	1.7%	6,091	28,013	17,362	1.3%
31-0000	Healthcare Support Occupations	53,274	\$28,600	0.93	2,879	5.2%	2,043	0.8%	0.8%	2.2%	2,151	11,948	9,531	1.7%
33-0000	Protective Service Occupations	36,563	\$34,400	0.84	1,554	4.1%	458	0.3%	0.3%	1.0%	793	8,892	874	0.2%
35-0000	Food Preparation and Serving Related Occupations	176,862	\$20,600	1.01	16,830	8.8%	17,922	2.2%	2.2%	2.9%	8,482	67,117	7,393	0.4%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	67,097	\$24,600	0.94	4,353	6.3%	3,342	1.0%	1.0%	1.0%	2,603	15,395	3,280	0.5%
39-0000	Personal Care and Service Occupations	66,760	\$24,300	0.85	3,666	5.3%	3,585	1.1%	1.1%	2.1%	1,794	20,032	7,112	1.0%
41-0000	Sales and Related Occupations	199,249	\$35,100	0.95	11,695	5.7%	10,877	1.1%	1.1%	1.3%	15,722	65,711	9,380	0.5%
43-0000	Office and Administrative Support Occupations	289,307	\$33,400	0.96	13,699	4.7%	20,562	1.5%	1.5%	1.7%	9,803	65,215	4,696	0.2%
45-0000	Farming, Fishing, and Forestry Occupations	8,373	\$28,300	0.62	561	6.4%	538	1.3%	1.3%	1.3%	80	4,621	-356	-0.4%
47-0000	Construction and Extraction Occupations	86,830	\$44,100	0.96	6,854	7.5%	-1,021	-0.2%	-0.2%	2.4%	1,544	16,369	8,277	0.9%
49-0000	Installation, Maintenance, and Repair Occupations	85,502	\$43,900	1.11	3,884	4.5%	3,691	0.9%	0.9%	1.6%	3,731	21,228	4,411	0.5%
51-0000	Production Occupations	191,985	\$37,000	1.56	12,670	6.4%	24,188	2.7%	2.7%	1.2%	3,264	49,690	-8,384	-0.4%
53-0000	Transportation and Material Moving Occupations	171,022	\$33,700	1.25	12,817	7.3%	13,404	1.6%	1.6%	2.3%	10,082	45,524	5,642	0.3%
00-0000	Total - All Occupations	2,031,196	\$42,400	1.00	n/a	n/a	117,283	1.2%	1.2%	1.7%	84,587	545,832	92,395	0.4%

Source: [JobsEQ®](#)

Data as of 2017Q2 unless noted otherwise

Note: Figures may not sum due to rounding.

1. Occupation wages are as of 2016 and should be taken as the average for all Covered Employment

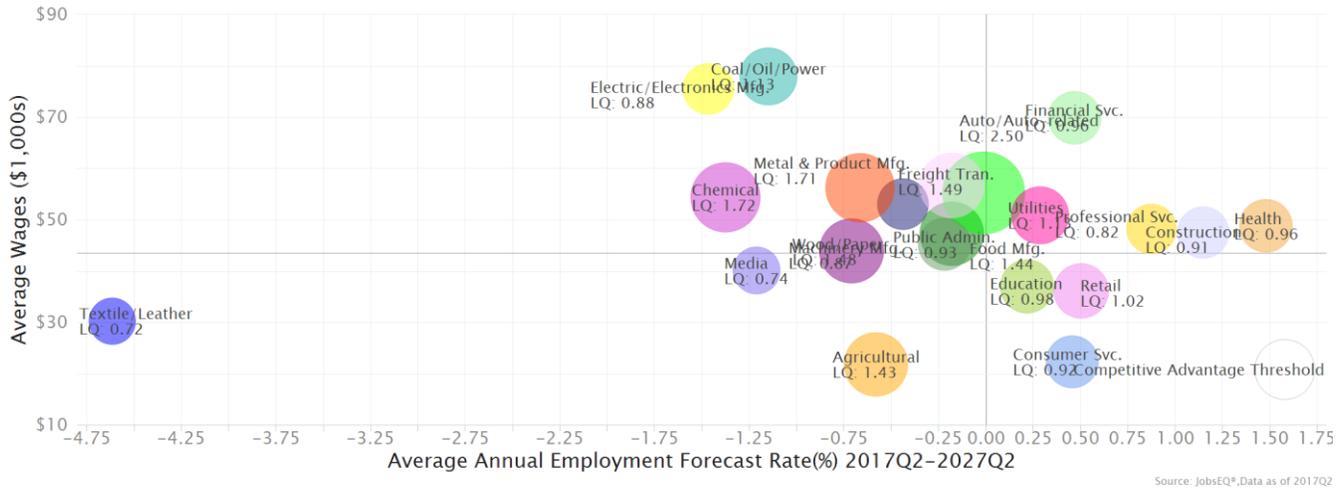
2. Data represent found online ads active within the last thirty days in any zip code intersecting or within the selected region; data represents a sampling rather than the complete universe of postings.

Occupation employment data are estimated via industry employment data and the estimated industry/occupation mix. Industry employment data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics and currently updated through 2016Q4, imputed where necessary with preliminary estimates updated to 2017Q2. Wages by occupation are as of 2016 provided by the BLS and imputed where necessary. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

# Industry Clusters

A cluster is a geographic concentration of interrelated industries or occupations. The industry cluster in Kentucky with the highest relative concentration is Auto/Auto-related with a location quotient of 2.50. This cluster employs 84,660 workers in the region with an average wage of \$55,219. Employment in the Auto/Auto-related cluster is projected to contract in the region about 0.0% per year over the next ten years.

Industry Clusters for Kentucky as of 2017Q2



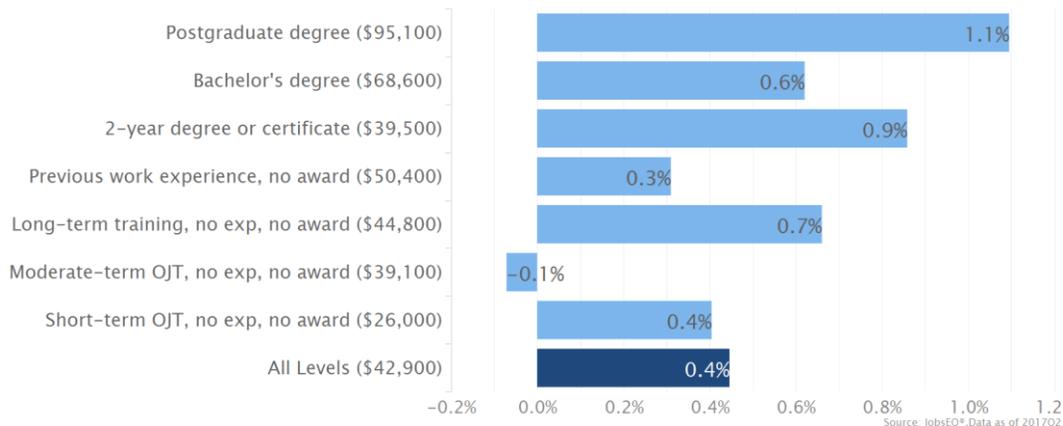
Source: JobsEQ®, Data as of 2017Q2

Location quotient and average wage data are derived from the Quarterly Census of Employment and Wages, provided by the Bureau of Labor Statistics, imputed where necessary, and updated through 2016Q4 with preliminary estimates updated to 2017Q2. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

# Education Levels

Expected growth rates for occupations vary by the education and training required. While all employment in Kentucky is projected to grow 0.4% over the next ten years, occupations typically requiring a postgraduate degree are expected to grow 1.1% per year, those requiring a bachelor's degree are forecast to grow 0.6% per year, and occupations typically needing a 2-year degree or certificate are expected to grow 0.9% per year.

Annual Average Projected Job Growth by Training Required for Kentucky

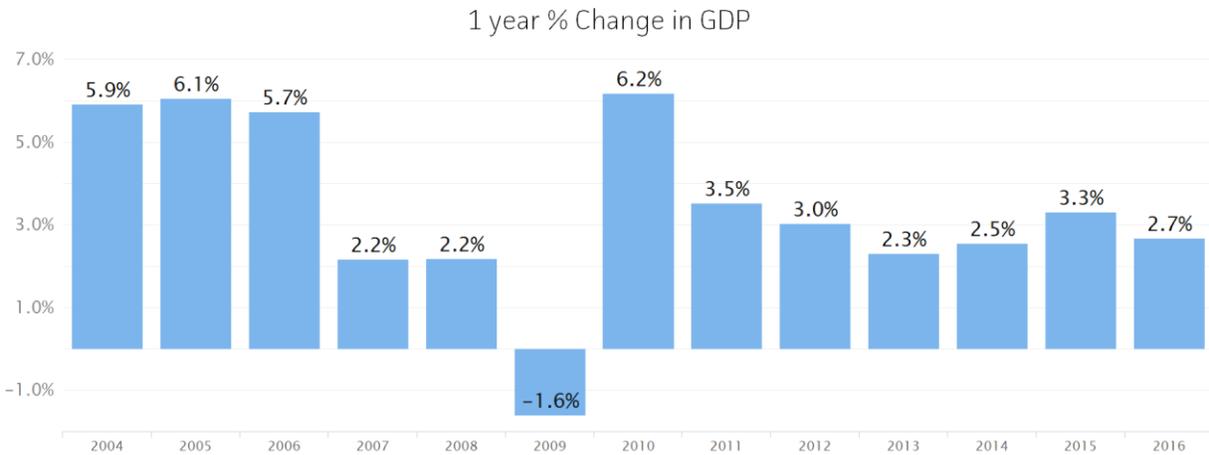


Source: JobsEQ®, Data as of 2017Q2

Employment by occupation data are estimates as of 2017Q2. Education levels of occupations are based on BLS assignments. Forecast employment growth uses national projections from the Bureau of Labor Statistics adapted for regional growth patterns.

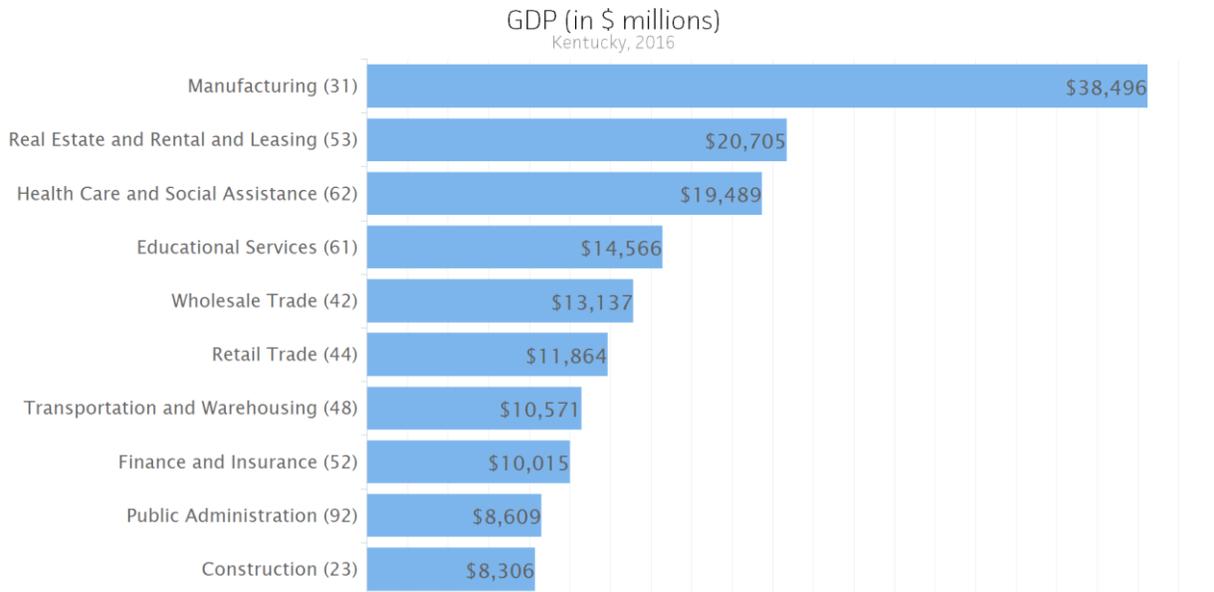
# Gross Domestic Product

Gross Domestic Product (GDP) is the total value of goods and services produced by a region. In 2016, nominal GDP in Kentucky expanded 2.7%. This follows growth of 3.3% in 2015. As of 2016, total GDP in Kentucky was \$197,043,000,000.



Gross Domestic Product data are provided by the Bureau of Economic Analysis, imputed by Chmura where necessary, updated through 2016.

Of the sectors in Kentucky, Manufacturing contributed the largest portion of GDP in 2016, \$38,495,910,000. The next-largest contributions came from Real Estate and Rental and Leasing (\$20,705,232,000); Health Care and Social Assistance (\$19,489,471,000); and Educational Services (\$14,566,206,000).



Gross Domestic Product data are provided by the Bureau of Economic Analysis, imputed by Chmura where necessary, updated through 2016.

# FAQ

## What is a location quotient?

A location quotient (LQ) is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

## What is replacement demand?

Replacement demand is the number of jobs required due to replacements—retirements and turnover resulting from workers moving from one occupation into another. Note that replacement demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. The replacement demand shown in this report may also be understated; thus, it can be taken to be a minimum measure of the number of workers who will need to be trained for the occupation due to replacements. The total projected demand for an occupation is the sum of the replacement demand and the growth demand (which is the increase or decrease of jobs in an occupation expected due to expansion or contraction of the overall number of jobs in that occupation).

## What is a cluster?

A cluster is a geographic concentration of interrelated industries or occupations. If a regional cluster has a location quotient of 1.25 or greater, the region is considered to possess a *competitive advantage* in that cluster.

## What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly.

## What is NAICS?

The North American Industry Classification System (NAICS) is used to classify business establishments according to the type of economic activity. The NAICS Code comprises six levels, from the “all industry” level to the 6-digit level. The first two digits define the top level category, known as the “sector,” which is the level examined in this report.

## What is SOC?

The Standard Occupational Classification system (SOC) is used to classify workers into occupational categories. All workers are classified into one of over 820 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 occupation groups. Each occupation group includes detailed occupations requiring similar job duties, skills, education, or experience.

## About This Report

This report and all data herein were produced by JobsEQ®, a product of Chmura Economics & Analytics. The information contained herein was obtained from sources we believe to be reliable. However, we cannot guarantee its accuracy and completeness.